

## Patent Abstracts of Japan

PUBLICATION NUMBER : 2001160973  
PUBLICATION DATE : 12-06-01

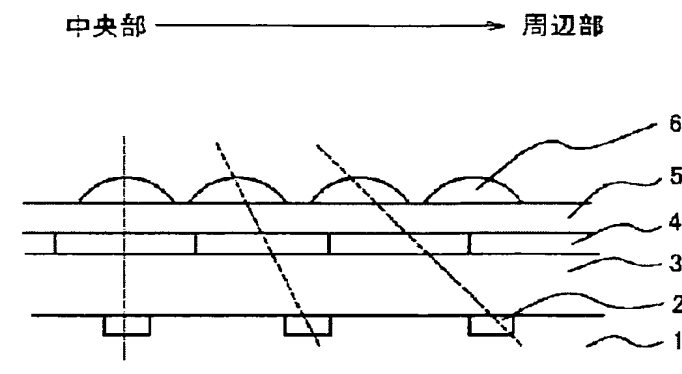
APPLICATION DATE : 02-12-99  
APPLICATION NUMBER : 11343029

APPLICANT : NIKON CORP;

INVENTOR : OKOCHI NAOKI;

INT.CL. : H04N 9/07 H01L 27/148 H04N 5/225  
H04N 5/335

TITLE : SOLID-STATE IMAGE PICKUP DEVICE  
AND ELECTRONIC CAMERA



ABSTRACT : PROBLEM TO BE SOLVED: To provide a solid-state image pickup device, that is reduced in color shading and/or has superior shading effect and to provide an electronic camera that has the solid-state image pickup element and is reduced in the shading.

SOLUTION: This solid-state image pickup device has a color filter, that is offset to a light receiving section in a center direction of an effective pixel section and/or an opening for a shielding film. Furthermore, the solid-state image pickup device is provided with a microlens, which is preferably offset to the light-receiving section similarly. Moreover, this electronic camera is mounted with the solid-state image pickup device having the microlens, the color filter and the opening for the shielding film that is placed at a proper shift calculated, on the basis of an emission angle defined by an image height and an emission pupil distance and the thickness of the film from the microlens up to the light-receiving section.

COPYRIGHT: (C)2001,JPO